

REMARKS

Claims 1-15 remain pending in the application. Claims 1 and 12 have been amended without introduction of new matter. Favorable reconsideration is respectfully requested in view of the above amendments and the following remarks.

Claim 1 stands rejected under 35 U.S.C. §101 as allegedly failing to define subject matter that falls into one of the four statutory categories of invention. This rejection is respectfully traversed.

Applicants respectfully disagree with the Office's assessment of claim 1. The four categories of subject matter defined by 35 U.S.C. §101 are: "process, machine, manufacture, and composition of matter." Even prior to amendment (discussed further below), claim 1 defined: "A method for synchronizing measurement events within a portable radio communication apparatus ... comprising the steps of: identifying ..., and sending" Applicants can think of no way that this language can be construed to define anything other than a method, since the preamble sets forth that it is a method, and the body of the claim recites only steps to be performed as part of the claimed method.

In support of its rejection, the Office argues that "The Applicant has provided no explicit and deliberate definitions of 'identifying' to limit the steps to the 'events' (i.e., what or who identifies the idle gaps?)" Applicants do not see a clear connection between the Office's stated concern and the question of which of the four statutory classes is defined by the claim, but in the interest of expediting favorable prosecution of the application Applicant has now amended claim 1 to define:

A method for synchronizing measurement events within a portable radio communication apparatus providing multiple radio access technologies including a first radio access technology device and a second radio access technology device, comprising the steps of:

the portable radio communication apparatus engaging in transceiver activities that are separated by one or more idle gaps;

the portable radio communication apparatus ascertaining whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device,

the first radio access technology device responding to the idle gap between transceiver activities of the first radio access technology device

being suitable for usage by the second radio access technology device by sending an execute signal to the second radio access technology device for initiating inter radio access technology measurements of said second radio access technology device to be performed during said idle gap; and
the second radio access technology device responding to the execute signal by performing a measurement operation during the idle gap.

Support for the portable radio communication apparatus, including its constituent first and second radio access technology devices, performing the claimed steps can be found in the original application at, for example, page 10, line 28 through page 13, line 23.

The amendment is believed to address the Office's stated concern, and claim 1 is believed to define statutory subject matter. Therefore, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. §101 be withdrawn.

Claims 1 and 12-15 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Jokinen et al. (WO/0237868 -- hereinafter "Jokinen"). This rejection is respectfully traversed.

The invention relates to methods and apparatuses for synchronizing measurement events within a portable radio communication apparatus having multiple and operatively interconnected radio access technology (RAT) devices. The radio access technology devices can be based on different access technologies (e.g., GSM and WCDMA). As explained in Applicants' specification at page 3, lines 8 *et seq.*, regardless of whether the different radio access technology devices utilize common radio resources, there is a particular problem associated with a situation in which a dual RAT terminal is camping on a scheme belonging to a GSM network and where the terminal does not support WCDMA measurements to be performed while the GSM RAT device is either receiving or transmitting. It is therefore desirable to provide a strategy that deals with the measurement event scheduling problem between the radio access technology devices within the portable radio communication apparatus.

Applicants' variously claimed embodiments address these problems. For example, as now amended, claim 1 defines

Claim 1: A method for synchronizing measurement events within a portable radio communication apparatus providing multiple radio access technologies

including a first radio access technology device and a second radio access technology device, comprising the steps of:

the portable radio communication apparatus engaging in transceiver activities that are separated by one or more idle gaps;

the portable radio communication apparatus ascertaining whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device,

the first radio access technology device responding to the idle gap between transceiver activities of the first radio access technology device being suitable for usage by the second radio access technology device by sending an execute signal to the second radio access technology device for initiating inter radio access technology measurements of said second radio access technology device to be performed during said idle gap; and

the second radio access technology device responding to the execute signal by performing a measurement operation during the idle gap.

Independent apparatus claim 12 has been similarly amended. Independent claim 12 has been further amended to substitute “means for” recitations in place of the “adapted to” recitations. The Office alleged that “it has ... been held that the recitation that an element is ‘adapted to’ perform a function is not a positive limitation but only requires the ability to so perform, it does not constitute a limitation in any patentable sense.” While the Office’s assertion may be true in some instances, it is certainly not generally the case. Rather, with respect to “adapted to”, “adapted for”, “wherein clauses” and “whereby clauses”, “[t]he determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case.” See, e.g., MPEP §2111.04, page 2100-46 (Rev. 6, Sept. 2007). Applicants believe that the original language of claim 12 set forth positive limitations that were required to have been given patentable weight by the Office. However, in the interest of expediting favorable prosecution of application, Applicants have chosen to forego a lengthy argument concerning this issue, and have instead opted for “means for” language, as specifically sanctioned under 35 U.S.C. §112, second paragraph.

Amendments relating to which components perform various steps have been discussed above. That “the portable radio communication apparatus engages in transceiver activities that are separated by one or more idle gaps” is supported in the specification at, for

example, page 10, line 32 through page 11, line 8. That the second radio access technology device responds to the execute signal by performing a measurement operation during the idle gap is supported by the original specification at, for example, page 11, line 29 through page 12, line 2.

Embodiments defined by independent claims 1 and 12 are patentably distinguishable over the Jokinen document at least because Jokinen neither discloses nor suggests:

- the portable radio communication apparatus ascertaining whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device;
- the first radio access technology device responding to the idle gap between transceiver activities of the first radio access technology device being suitable for usage by the second radio access technology device by sending an execute signal to the second radio access technology device for initiating inter radio access technology measurements of said second radio access technology device to be performed during said gap; and
- the second radio access technology device responding to the execute signal by performing a measurement operation during the idle gap.

(Emphasis added.)

According to the method disclosed in Jokinen, a mobile station determines whether a certain base station uses dynamic configurations or not. (See, e.g., Jokinen at page 6, lines 5-8.) The information about the use of dynamic configuration is important during handover between cells using different radio access technologies. (See, e.g., Jokinen at page 2, lines 15-20). Thus, according to Jokinen, sets of preconfiguration parameters making up the dynamic configurations must be transferred from the base station to the mobile station.

In order to perform the method according to Jokinen, the following steps are performed: The base stations, independently of radio access technology, use a broadcast control channel to broadcast control signals to the mobile station. (See, e.g., Jokinen at page 6, lines 14-16.) In a first step of the method according to Jokinen, it is determined whether the signal level or quality of the control signal meets predetermined criteria. If it does, the mobile station tries to determine whether dynamic configurations are in use or not by periodically receiving and attempting to decode the signal on the control channel. First, a CRC check is made. If it fails, a new attempt to receive and decode is made after a time

interval T_attempt. If it is successful, the dynamic configurations are read, if there are any. (See, e.g., Jokinen at page 14, line 25 through page 15, line 28.)

According to Jokinen, this method is performed when the mobile station is in an IDLE mode. (See, e.g., Jokinen at page 15, line 29 through page 16, line 2.) How this is done or if there is a problem or conflict between different radio access technologies is not further mentioned. The only thing mentioned is that a controller/timer module is aware of the paging reception timing interval information, which of course depends on the telecommunication standard in use. (See, e.g., Jokinen at page 25, lines 21-24.) The controller uses this information and a timer to control the reading of the dynamic configuration parameters. The timer is used to make a new reading attempt after a predetermined time period after a failure to read the dynamic configurations. (See, e.g., Jokinen at page 25, lines 24-32.) Thus, the method of Jokinen does not, beforehand, involve the portable radio communication device (or any other device) “ascertaining whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device.” Nor would Jokinen have any use for such a step, since its technique is exclusively performed during occurrences of the device’s IDLE mode, each of which is suitable for Jokinen’s purpose of downloading dynamic configuration parameters.

By contrast, Applicants’ claimed embodiments involve the claimed “ascertaining ...” step because not all Idle gaps (as distinguished from IDLE mode) are “suitable for use by the second radio access technology device.” For example, Applicants’ specification at page 11, lines 4-12 explains that “These idle frames are ... used for both GSM measurements and WCDMA inter-RAT measurements. Thus, the available idle frames must be distributed and scheduled between the WCDMA RAT device 101 and the GSM RAT device 102. It is, however, difficult to schedule the usage of GSM idle frames for GSM internal measurements in advance, i.e. a comparably long time ahead. Hence, it is difficult to schedule which idle frames that are available for the WCDMA RAT device to perform measurements.” (Emphasis added.)

In further contrast to Jokinen, Applicants’ claimed embodiments relate to the synchronization of measurement events in different access technologies within a portable radio communication apparatus and not communication between a base station and the portable radio communication apparatus. Jokinen does not disclose any synchronization of measurement events within a portable radio communication apparatus providing multiple

radio access technologies, but instead shows the transmittal of information, concerning handover between cells using different radio access technologies, from a cellular network to a mobile station.

In its “Response to Arguments” section of the Action, the Office argues that “any at least two devices and/or distributed logic of the prior art would read on the first radio access technology device and the second radio access technology device based on the claim language as long as the device and or distributive logic provides the particular function of the first and/or second access technology.” Applicant respectfully disagrees because the Office is required to give claims “their broadest reasonable interpretation consistent with the specification” (emphasis added). See, e.g., MPEP §2111, page 2100-37 (Rev. 6, Sept. 2007). Applicant understands that in construing claims in this manner, the Office cannot import limitations from the specification into a claim to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claims. However, in the present instance, that a single portable radio communication apparatus provides multiple radio access technologies (i.e., the first and second radio access technology devices) that interact with one another as defined by the claims is not only described in the specification, but also is expressly stated in the claims. Thus, no importation of limitations from the specification is involved, and it is improper for the Office to ignore such express claim limitations. For example, claim 1 expressly defines “a portable radio communication apparatus providing multiple radio access technologies including a first radio access technology device and a second radio access technology device.” (Even though this recitation appears in the preamble, Applicants believe that it must be given patentable weight because the “portable radio communication apparatus”, “first radio access technology device”, and “second radio access technology device” are further recited in the body of the claim. The Office is reminded that “Any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation.” MPEP §2111.02(I) page 2100-42 (Rev. 6, Sept. 2007).)

Furthermore, in Jokinen neither the mobile station nor any other system device “ascertain[s] whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device.” As mentioned above, Jokinen has no need for such a step because its technique of obtaining dynamic configuration is exclusively performed during a mobile device’s “IDLE mode” rather than Applicants’ claimed “idle gap occurring between transceiver activities of the first

radio access technology device”. In Jokinen, there is simply no question about whether the IDLE mode is suitable for use by the second radio access technology device, so Jokinen fails to disclose or even suggest an “ascertaining” step.

Jokinen additionally lacks any teaching of the first radio access technology device sending an execute signal to the second radio access technology device, all within the portable radio communication apparatus, and instead sends a control signal from the base station to the mobile station.

The Office relies on Jokinen at page 14, line 25 through page 16, line 2 as allegedly showing a step of sending an execute signal to a second radio access technology device for initiating inter radio access technology measurements of said second radio access technology device to be performed during said gap. This reliance is not understood because, to Applicants’ best knowledge, Jokinen does not describe the sending of an execute signal from a first to a second radio access technology device all within the portable radio communication apparatus.

Again, the Office attempts to rebut this argument by alleging that “any at least two devices and/or distributed logic of the prior art would read on the first radio access technology device and the second radio access technology device” However, for reasons discussed above, Applicants believe that such a claim interpretation is improper: The claims expressly state that the first and second radio access technology devices are all included within a portable radio communication apparatus, and it is improper for the Office to ignore this express limitation.

For at least the foregoing reasons, independent claims 1 and 12, as well as claim 12’s dependent claims 13-15, are believed to define subject matter that is novel and nonobvious over that which is disclosed by Jokinen. Accordingly, it is respectfully requested that the rejection of claims 1 and 12-15 under 35 U.S.C. §102(b) be withdrawn.

Claims 2-11 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Jokinen in view of Breuer et al. (WO 02/39758 -- hereinafter “Breuer”). This rejection is respectfully traversed.

Claims 2-11 all depend from independent claim 1, and are therefore patentably distinguishable over the Jokinen document for at least the same reasons as those set forth above. Breuer fails to make up for the deficiencies of Jokinen, so that any combination of Jokinen with Breuer would still lack at least the following claimed features:

- the portable radio communication apparatus ascertaining whether an idle gap between transceiver activities of the first radio access technology device is suitable for usage by the second radio access technology device;
- the first radio access technology device responding to the idle gap between transceiver activities of the first radio access technology device being suitable for usage by the second radio access technology device by sending an execute signal to the second radio access technology device for initiating inter radio access technology measurements of said second radio access technology device to be performed during said gap; and
- the second radio access technology device responding to the execute signal by performing a measurement operation during the idle gap.

(Emphasis added.)

In Breuer, a first base station signals at least one parameter of a time interval to a user station. (See, e.g., Breuer at page 4, lines 24-28.) This is in sharp contrast to Applicants' presently claimed embodiments in which the portable radio communication apparatus itself ascertains whether an idle gap is suitable for usage by a second radio access technology device. Furthermore, Breuer shows a method that starts and is initiated from a first base station and not from a user station. (See, e.g., Breuer English language Abstract.) Thus, there is no teaching in Breuer that would enable a skilled person at the time of the invention to devise a strategy and/or apparatus by which a portable radio communication apparatus is able to synchronize measurement events itself.

For at least the foregoing reasons, the subject matter defined by each of dependent claims 2-11 is believed to be patentably distinguishable over Jokinen and Breuer, regardless of whether these documents are considered individually or in combination. Accordingly, it is respectfully requested that the rejection of claims 2-11 under 35 U.S.C. §103(a) be withdrawn.

The application is believed to be in condition for allowance. Prompt notice of same is respectfully requested.

Respectfully submitted,
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